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From 1956-1960 an estimated 34,000 infants annually failed to survive in many parts of the United States due to risks far in excess of those for some areas of the country. There is a growing gap between death rates for white and nonwhite infants in the United States, with the excess mortality rate of nonwhite infants continuing to rise. Only 15 states lowered infant mortality rates from 1960-62 to 1964. Large cities had an infant mortality rate of 27.9 in 1964, compared to the national average of 24.8. This was a result of a decrease in the death rate for white infants offset by an increase in the nonwhite infant mortality rate. Most U.S. counties which showed excess infant mortality had cities of 50,000 or more. Urban areas had nearly three out of four excess neonatal deaths (under 28 days) in 1964. Twenty-two percent of the annual excess infant deaths occurred in the 21 largest cities, in areas with a low standard of living characterized by high maternal and infant death risks. Excess neonatal mortality in rural areas was concentrated in non-metropolitan counties. Excess white postneonatal deaths (1-11 months) were most frequent in rural and small urban areas, while excess postneonatal deaths of nonwhites was confined to urban areas. (DR)

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INFANT MORTALITY: A CHALLENGE TO THE NATION

Infant Mortality by State

Progress Lags in Reducing Urban Infant Mortality

Excess Infant Mortality by Counties, 1956-60

Excess Neonatal and Postneonatal Mortality in Urban and Rural Areas, 1964

Poor Urban Neighborhoods: High Concentrations of Maternal and Child Health Problems

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
WELFARE ADMINISTRATION
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INFANT MORTALITY BY STATE

The recent national reduction of 2.8 percent in the infant death rate shows improved chances for white infants in their first 28 days of life, and lesser relative gains for older infants in this group, (Table A). The neonatal mortality rate for nonwhite infants was 64 percent above that for white infants and showed no sign of improvement. Among nonwhite infants 1-11 months, the postneonatal death rate (14.6 per 1,000 live births) was nearly triple that for white infants (5.4) in 1964, but was declining.

The gap between death rates for white and nonwhite infants has become wider in recent years, increasing from 66 percent in 1950 to 90 percent in 1964. This excess represents a lag of over two decades in reducing infant losses in the nonwhite group. The 1964 mortality rate of 41.1 for nonwhite infants has not been recorded since 1941.

In the postneonatal period (1-11 months), the excess mortality of nonwhite infants rose from 128 percent in 1950 to 170 percent in 1964. Significant differentials likewise prevailed in the neonatal period--from 42 percent excess in 1950 to 64 percent in 1964.

Table A

Infant Mortality, United States, 1964

Infant mortality	Rate per 1,000 live births 1964	Percent	
		Decrease from 1960-62[1]	Excess nonwhite over white, 1964
Infant (under 1 year).....	24.8	-2.8	90
White.....	21.6	-4.0	...
Nonwhite.....	41.1	-1.7	...
Neonatal (under 28 days).....	17.9	-3.2	64
White.....	16.2	-4.7	...
Nonwhite.....	26.5	(+0.4)	...
Postneonatal (1-11 months)...	6.9	-2.8	170
White.....	5.4	-1.8	...
Nonwhite.....	14.6	-5.2	...

[1] Parentheses signify lack of statistical significance.

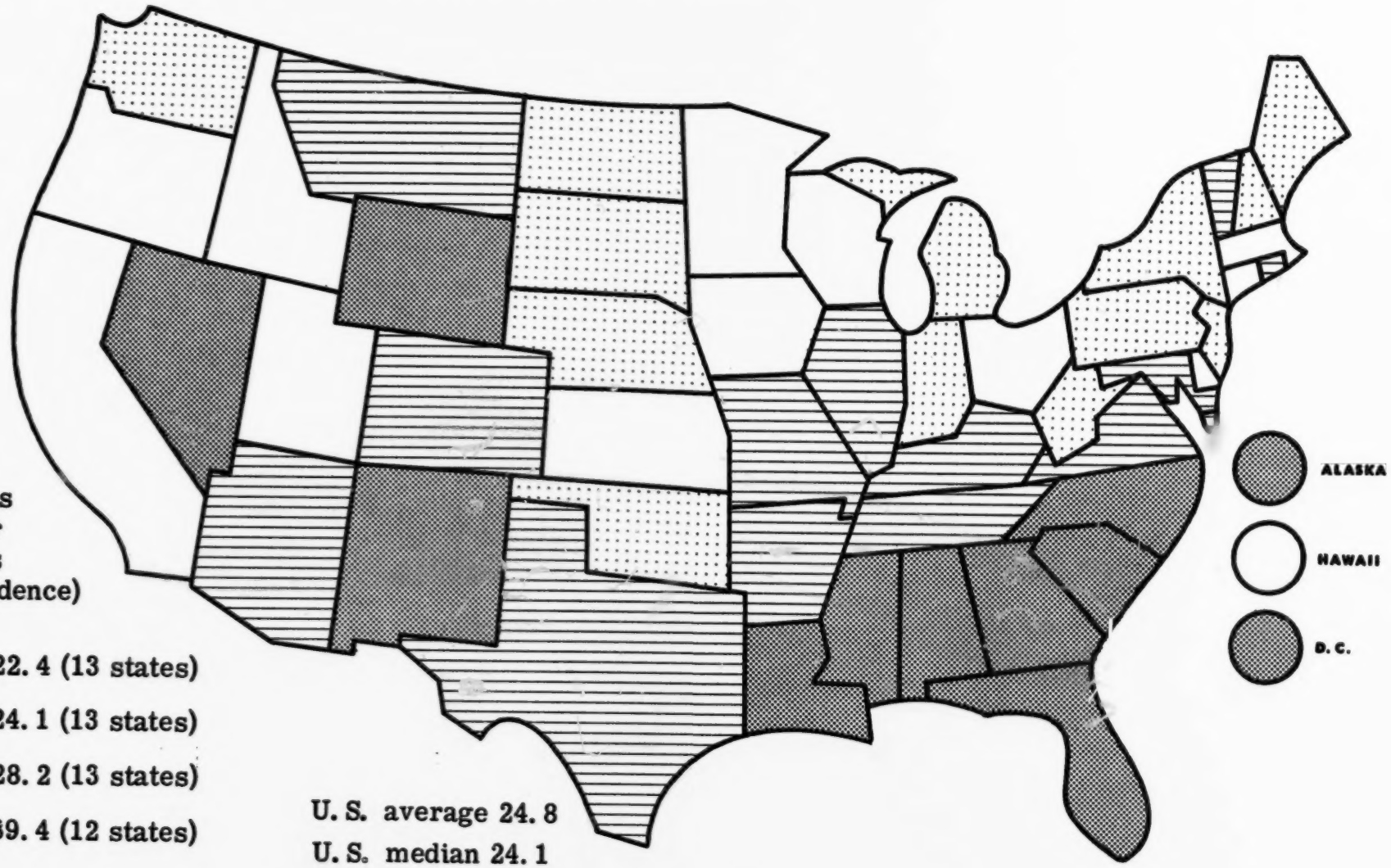
Source of data: Public Health Service, National Center for Health Statistics.

Not all States reduced their infant mortality rate in 1964 as compared with 1960-62. The 15 States which lowered their rates were:

Area	Percent decrease in rate, 1964 from 1960-62
United States	-2.8
Alaska	-20.2
Arizona	-13.2
California	-6.0
Connecticut	-6.4
Georgia	-5.2
Kentucky	-7.6
Louisiana	-4.5
Maryland	-7.9
Massachusetts	-8.8
Michigan	-4.2
Ohio	-5.6
Oklahoma	-7.4
Pennsylvania	-3.8
South Dakota	-14.1
West Virginia	-10.3

Infant mortality rates for each State are shown on the accompanying map. The rate for all infants, for white, and for nonwhite infants is given in Tables 1, 1a, and 1b.

INFANT MORTALITY RATE
United States, 1964



Number of deaths
under 1 year per
1,000 live births
(by place of residence)

- 19.8 - 22.4 (13 states)
- 22.5 - 24.1 (13 states)
- 24.2 - 28.2 (13 states)
- 28.9 - 39.4 (12 states)

U. S. average 24.8
U. S. median 24.1

Table 1 INFANT MORTALITY RATE: UNITED STATES, EACH STATE AND SPECIFIED AREAS, 1964, 1963 and 1960-62

Total Infants

(By place of residence. Exclusive of fetal deaths.)

State	Rate per 1,000 live births			Percent change in rate from 1960-62	
	1964	1963	1960-62	1964	1963
United States[1]	24.8	25.2	25.5	-2.8*	-1.2*
Alabama	31.0	32.2	31.4	-1.3	+2.5
Alaska	29.7	31.9	37.2	-20.2*	-14.2*
Arizona	26.3	28.8	30.3	-13.2*	-5.0
Arkansas	26.8	28.5	27.9	-4.0	-2.2
California	21.8	22.3	23.2	-6.0*	-3.9*
Colorado	25.4	25.9	26.3	-3.4	-1.1
Connecticut	20.6	22.7	22.0	-6.4*	+3.2
Delaware	21.7	24.5	23.9	-9.2	+2.5
District of Columbia	34.0	33.0	35.6	-4.5	-7.3
Florida	28.9	27.9	29.1	-0.7	-4.1
Georgia	29.2	31.0	30.8	-5.2*	+0.6
Hawaii	19.9	22.5	21.9	-9.1	+2.7
Idaho	22.2	22.8	23.4	-5.1	-2.6
Illinois	25.1	23.9	24.4	+2.9	-2.1
Indiana	23.8	23.4	23.7	+0.4	-1.3
Iowa	21.2	20.6	20.8	+1.9	-1.0
Kansas	22.0	22.4	22.2	-0.9	+0.9
Kentucky	25.4	27.8	27.5	-7.6*	+1.1
Louisiana	29.8	30.4	31.2	-4.5*	-2.5
Maine	23.5	24.1	25.4	-7.5	-5.1
Maryland	24.5	25.6	26.6	-7.9*	-3.8
Massachusetts	19.8	20.6	21.7	-8.8*	-5.1*
Michigan	23.0	23.2	24.0	-4.2*	-3.3
Minnesota	20.5	20.8	21.6	-5.1	-3.7
Mississippi	39.4	41.3	39.8	-1.0	+3.8
Missouri	24.2	24.1	24.9	-2.8	-3.2
Montana	26.6	24.2	25.5	+4.3	-5.1
Nebraska	22.7	21.6	21.8	+4.1	-0.9
Nevada	29.0	30.3	29.4	-1.4	+3.1
New Hampshire	22.6	22.7	23.4	-3.4	-3.0
New Jersey	23.7	23.7	24.0	-1.3	-1.3
New Mexico	29.1	30.5	31.0	-6.1	-1.6
New York	24.1	24.0	24.2	-0.4	-0.8
North Carolina	30.3	31.2	31.0	-2.3	+0.6
North Dakota	23.1	24.6	23.6	-2.1	+4.2
Ohio	22.0	23.2	23.3	-5.6*	-0.4
Oklahoma	22.6	24.3	24.4	-7.4*	-0.4
Oregon	22.4	21.4	22.7	-1.3	-5.7
Pennsylvania	23.1	23.7	24.0	-3.8*	-1.3
Puerto Rico[2]	51.6	44.6	42.2	+22.3*	+5.7*
Rhode Island	24.9	23.9	23.7	+5.1	+0.8
South Carolina	31.1	33.0	32.7	-4.9	+0.9
South Dakota	22.5	24.7	26.2	-14.1*	-5.7
Tennessee	28.2	28.0	29.1	-3.1	-3.8
Texas	27.4	27.6	27.6	-0.7	0
Utah	20.0	18.6	19.9	+0.5	-6.5
Vermont	24.7	24.6	24.7	0	-0.4
Virgin Islands[2]	28.4	31.7	35.5	-20.0	-10.7
Virginia	28.0	29.2	29.0	-3.5	+0.7
Washington	22.5	22.1	23.0	-2.2	+3.9
West Virginia	23.5	26.1	26.2	-10.3*	-0.4
Wisconsin	20.8	22.3	21.7	-4.2	+2.8
Wyoming	29.0	28.5	28.5	+1.8	0

* Statistically significant.
[1] Exclusive of Puerto Rico and the Virgin Islands.
[2] By place of occurrence.

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Table 1a. INFANT MORTALITY RATE: UNITED STATES, EACH STATE AND SPECIFIED AREAS, 1964, 1963 and 1960-62

White Infants

(By place of residence. Exclusive of fetal deaths.)

State	Rate per 1,000 live births			Percent change in rate from 1960-62	
	1964	1963	1960-62	1964	1963
United States[1] [2]	21.6	22.2	22.6	-4.4*	-1.8*
Alabama	23.1	24.5	23.9	-3.3	+2.5
Alaska	19.2	24.8	25.3	-24.1*	-2.0
Arizona	24.0	23.3	25.8	-7.0	-9.7
Arkansas	22.3	23.4	22.9	-2.6	+2.2
California	20.8	21.5	22.3	-6.7*	-3.6*
Colorado	24.6	25.6	25.7	-4.3	-0.4
Connecticut	19.2	21.0	20.7	-7.2*	+1.4
Delaware	17.1	20.3	18.8	-9.1	+8.0
District of Columbia	22.6	25.4	27.7	-18.4*	-8.1
Florida	23.0	22.6	23.1	-0.4	-2.2
Georgia	21.9	23.1	22.8	-4.0	+1.3
Hawaii	20.9	20.8	20.5	+2.0	+1.5
Idaho	22.3	22.4	23.3	-4.3	-3.9
Illinois	21.4	20.9	21.7	-1.4	-3.7
Indiana	22.4	21.9	22.4	0	-2.2
Iowa	20.7	20.4	20.5	+1.0	-0.5
Kansas	20.7	21.3	21.5	-3.7	-0.9
Kentucky	23.6	26.3	25.7	-8.2*	+2.3
Louisiana	20.5	20.6	22.0	-6.8*	-6.4*
Maine	23.5	24.1	25.4	-7.5	-5.1
Maryland	20.1	21.6	21.9	-8.2*	-1.4
Massachusetts	19.3	20.2	21.2	-9.0*	-4.7
Michigan	21.0	21.5	22.3	-5.8*	-3.6
Minnesota	20.2	20.6	21.4	-5.6*	-3.7
Mississippi	23.1	22.9	25.3	-8.7	-9.5*
Missouri	21.0	21.4	22.1	-5.0	-3.2
Montana	24.5	22.3	24.0	+2.1	-7.1
Nebraska	22.0	20.6	21.2	+3.8	-2.8
Nevada	28.4	28.3	28.3	+0.4	0
New Hampshire	22.5	22.6	23.3	-3.4	-3.0
New Jersey[2]	20.4	---	---	...	...
New Mexico	27.1	28.2	29.2	-7.4	-3.4
New York	20.9	20.6	21.4	-2.3	-0.9
North Carolina	21.5	22.2	22.4	-4.0	-0.9
North Dakota	22.3	23.8	22.8	-2.2	+4.4
Ohio	20.4	21.6	21.7	-6.0*	-0.5
Oklahoma	20.9	22.3	22.2	-5.9	+0.5
Oregon	21.9	21.4	22.4	-2.2	-4.5
Pennsylvania	21.1	21.4	22.0	-4.1*	-2.7
Puerto Rico[3]	---	---	---	...	...
Rhode Island	24.0	22.5	23.1	+3.9	-2.6
South Carolina	23.1	22.4	23.4	-1.3	-4.3
South Dakota	21.0	22.7	23.3	-9.9	-2.6
Tennessee	24.8	23.5	25.2	-1.6	-6.7*
Texas	24.4	25.5	25.2	-3.2*	+1.2
Utah	19.2	18.2	19.3	-0.5	-5.7
Vermont	24.6	24.7	24.7	-0.4	0
Virgin Islands[3]	---	---	---	...	...
Virginia	22.7	24.1	23.9	-5.0	+0.8
Washington	21.7	20.9	22.0	-1.4	-5.0
West Virginia	22.8	25.6	25.7	-11.3*	-0.4
Wisconsin	20.1	21.8	21.2	-5.2*	+2.8
Wyoming	28.5	27.7	27.7	+2.4	0

* Statistically significant.

[1] Exclusive of Puerto Rico and the Virgin Islands.

[2] Exclusive of New Jersey, by color, in 1963 and 1962.

[3] By place of occurrence.

Table 1b. INFANT MORTALITY RATE: UNITED STATES, EACH STATE AND SPECIFIED AREAS, 1964, 1963 and 1960-62

Nonwhite Infants

(By place of residence. Exclusive of fetal deaths.)

State	Rate per 1,000 live births			Percent change in rate from 1960-62	
	1964	1963	1960-62	1964	1963
United States[1] [2]	41.1	41.5	41.8	-1.7*	-0.7
Alabama	44.6	45.3	44.2	+0.7	+2.5
Alaska	52.2	46.7	62.4	-16.3	-25.2*
Arizona	38.0	56.2	54.3	-30.0*	+3.5
Arkansas	37.8	41.4	39.8	-5.0	+4.0
California	28.9	28.3	29.8	-3.0	-5.0
Colorado	43.9	34.0	42.1	+4.3	-19.2
Connecticut	35.4	41.1	39.1	-9.5	+5.1
Delaware	39.4	41.2	44.9	-12.3	-8.3
District of Columbia	38.0	36.1	39.0	-2.6	-7.4
Florida	44.9	42.7	45.7	-1.8	-6.6*
Georgia	42.6	45.8	45.3	-6.0	+1.1
Hawaii	19.4	23.3	22.5	-13.8*	+3.6
Idaho	19.8	43.4	28.4	-30.3	+52.8
Illinois	43.5	38.7	38.1	+14.2*	+1.6
Indiana	39.8	39.5	38.6	+3.1	+2.3
Iowa	45.9	33.7	34.5	+33.0*	-2.3
Kansas	39.4	37.8	31.8	+23.9	+18.9
Kentucky	44.7	44.4	46.6	-4.1	-4.7
Louisiana	43.8	45.5	45.5	-3.7	0
Maine	21.3	24.6	24.1	-11.6	+2.1
Maryland	40.1	39.8	42.9	-6.5*	-7.2
Massachusetts	31.7	29.6	33.5	-5.4	-11.6
Michigan	39.1	36.9	37.2	+5.1	-0.8
Minnesota	30.4	29.1	30.2	+0.7	-3.7
Mississippi	53.2	57.6	52.2	+1.9	+10.3*
Missouri	42.7	41.0	42.3	+0.9	-3.1
Montana	50.1	46.6	43.7	+14.6	+6.6
Nebraska	35.2	40.5	34.6	+1.7	+17.1
Nevada	33.3	46.1	37.1	-10.3	+24.3
New Hampshire	41.7	27.3	24.4	+70.2	+11.9
New Jersey[2]	41.6	---	---	...	...
New Mexico	42.4	46.6	44.6	-4.9	+4.5
New York	41.5	39.4	41.4	+0.2	-4.8*
North Carolina	49.4	50.8	49.8	-0.8	+2.0
North Dakota	38.3	43.3	41.4	-7.4	+4.6
Ohio	35.7	36.9	37.5	-4.8	-1.6
Oklahoma	32.3	35.5	38.2	-15.5*	-7.1
Oregon	33.6	21.3	30.8	+9.1	-30.8
Pennsylvania	38.9	41.3	40.8	-4.7	+1.2
Puerto Rico[3]	---	---	---	...	...
Rhode Island	46.3	54.7	39.7	+16.6	+37.8
South Carolina	42.4	48.1	45.7	-7.2*	+5.3
South Dakota	36.2	46.6	61.1	-40.8*	-23.7*
Tennessee	40.4	44.2	42.7	-5.4	+3.5
Texas	42.6	39.3	41.2	+3.4	-4.6
Utah	50.0	34.4	45.3	+10.4	-24.1
Vermont	62.5	-	-	...	...
Virgin Islands[3]	---	---	---	...	...
Virginia	44.4	45.0	44.8	-0.9	+0.4
Washington	35.3	39.6	38.6	-8.6	+2.6
West Virginia	38.7	36.6	35.2	+9.9	+4.0
Wisconsin	37.8	33.7	35.3	+7.2	-4.5
Wyoming	39.6	47.9	49.0	-19.2	-2.3

* Statistically significant.
[1] Exclusive of Puerto Rico and the Virgin Islands.
[2] Exclusive of New Jersey, by color, in 1962 and 1963.
[3] By place of occurrence.

PROGRESS LAGS IN REDUCING URBAN INFANT MORTALITY

The infant mortality rate in large cities in 1964 showed no reduction in comparison with the average annual rate for 1960-62. In 1964, for the 21 largest cities with populations of 500,000 or more (1960), the infant death rate was 27.9 contrasted with the 1964 national average of 24.8. The stationary effect resulted from a significant decrease in death rate for white infants offset by an increase in the rate for nonwhite infants. Similar contrary trends for white and nonwhite infants were recorded in the newborn period (under 28 days) and likewise for older infants (1-11 months). Of the 21 largest cities noted here, only three recorded significant gains in lowering fatal risks in infancy: Baltimore, Boston, and San Francisco (Table 1).

In the perinatal period (just before, during, and after birth) the death rate rose sharply in these cities, in contrast with the country as a whole.

Area	Perinatal deaths per 1,000 total births (live and still)[1]		Percent change
	1964	1960-62	
United States....	33.7	34.0	-0.9
Cities of 500,000 or more in 1960 (21 cities)....	44.1	40.7	+8.4

[1] Perinatal deaths include neonatal (under 28 days) and fetal deaths in pregnancies of 20 or more (or not stated) weeks of pregnancy.

The increased perinatal death rate of the cities reflected rising fetal death rates: in the white group there was a 12 percent increase, and an increase of 18 percent in the nonwhite group, over the respective fetal death rates in 1960-62.

Table 1. INFANT MORTALITY RATE BY COLOR: UNITED STATES, CITIES OF 500,000 OR MORE POPULATION (1960) AND ALL OTHER AREAS, 1964, 1963, and 1960-62

(By place of residence)

Area and color	Rate per 1,000 live births			Percent change in rate from 1960-62	
	1964	1963	1960-62	1964	1963
United States[1]	24.8	25.2	25.5	-2.8*	-1.2*
White	21.6	22.2	22.6	-4.4*	-1.8*
Nonwhite	41.1	41.5	41.8	-1.7*	-0.7
Cities of 500,000 or more	27.9	26.8	27.6	+1.1	-2.9*
White	22.5	22.2	23.1	-2.6*	-3.9*
Nonwhite	39.5	36.7	38.2	+3.4*	-3.9*
Baltimore, Md.	29.7	28.8	32.4	-8.3*	-11.1*
White	23.8	22.6	25.1	-5.2	-10.0
Nonwhite	35.5	35.3	40.2	-11.7*	-12.2*
Boston, Mass.	21.8	21.5	25.0	-12.8*	-14.0*
White	19.8	19.4	23.2	-14.7*	-16.4*
Nonwhite	30.8	29.4	33.9	-9.1	-13.3
Buffalo, N.Y.	26.9	26.5	25.6	+5.1	+3.5
White	24.6	22.2	22.6	+8.8	-1.8
Nonwhite	34.2	42.5	36.6	-6.6	+16.1
Chicago, Ill.	31.0	27.2	28.2	+9.9	-3.6
White	22.5	20.8	22.7	-0.9	-8.4*
Nonwhite	45.6	37.9	38.1	+19.7*	-0.5
Cincinnati, Ohio	23.3	21.7	22.9	+1.7	-5.3
White	19.4	19.2	19.1	+1.6	+0.5
Nonwhite	33.1	28.5	33.9	-2.4	-15.9
Cleveland, Ohio	28.9	31.7	29.4	-1.7	+7.8
White	22.5	26.4	24.5	-8.2	+7.8
Nonwhite	40.5	41.5	36.5	+5.2	+7.8
Dallas, Texas	28.4	27.9	26.9	+5.6	+3.7
White	22.5	24.7	22.6	-0.4	+9.3
Nonwhite	39.8	35.6	37.4	+6.4	-4.8
Detroit, Mich.	28.0	28.0	28.9	-3.1	-3.1
White	20.5	22.5	24.4	-16.0*	-7.8
Nonwhite	39.2	36.8	36.3	+8.0	+1.4
Houston, Texas	28.4	24.3	26.9	+5.6	-9.7*
White	22.9	20.7	22.8	+0.4	-9.2
Nonwhite	40.6	32.5	36.4	+11.6	-10.7
Los Angeles, Calif.	25.1	24.0	24.3	+3.3	-1.2
White	22.2	21.2	22.1	+0.5	-4.1
Nonwhite	33.1	31.8	30.6	+8.2	+3.9
Milwaukee, Wis.	28.6	25.2	23.9	+19.7*	+5.4
White	26.1	22.9	21.9	+19.2*	+4.6
Nonwhite	41.4	37.5	35.2	+17.6	+6.5
New Orleans, La.	30.4	29.8	32.4	-6.2	-8.0
White	19.7	21.9	23.3	-15.5	-6.0
Nonwhite	40.6	37.8	41.9	-3.1	-9.8
New York, N.Y.	26.9	26.1	26.5	+1.5	-1.5
White	21.5	21.6	21.9	-1.8	-1.4
Nonwhite	42.1	39.2	41.9	+0.5	-6.5*
Philadelphia, Pa.	30.9	30.3	31.0	-0.3	-2.3
White	25.4	24.7	25.8	-1.6	-4.3
Nonwhite	39.6	39.7	40.3	-1.7	-1.5
Pittsburgh, Pa.	27.9	29.1	28.6	-2.4	+1.7
White	24.2	25.1	25.3	-4.3	-0.8
Nonwhite	38.1	40.5	39.5	-3.5	+2.5
St. Louis, Mo.	32.1	28.7	31.0	+3.5	-7.4
White	24.6	22.8	23.9	+2.9	-4.6
Nonwhite	41.2	37.0	41.9	-1.7	-11.7
San Antonio, Texas	26.2	24.8	28.8	-9.0	-13.9*
White	24.8	24.4	28.2	-12.1*	-13.5*
Nonwhite	41.5	30.0	36.1	+15.0	-16.9
San Diego, Calif.	24.0	25.4	25.3	-5.1	+0.4
White	23.3	24.6	23.9	-2.5	+2.9
Nonwhite	28.3	29.8	34.9	-18.9	-14.6
San Francisco, Calif.	20.9	25.3	24.2	-13.6*	+4.5
White	19.4	24.8	22.8	-14.9*	+8.8
Nonwhite	24.3	26.2	27.5	-11.6	-4.7
Seattle, Wash.	24.8	21.9	23.3	+6.4	-6.0
White	24.9	19.9	22.6	+10.2	-12.0
Nonwhite	24.1	33.4	28.2	-14.5	+18.4
Washington, D.C.	34.0	33.0	35.6	-4.5	-7.3
White	22.6	25.4	27.7	-18.4*	-8.3
Nonwhite	38.0	36.1	39.0	-2.6	-7.4
All other areas[1]	24.2	24.9	25.2	-4.0*	-1.2*
White	21.5	22.2	22.5	-4.4*	-1.3*
Nonwhite	41.8	43.6	41.1	+1.7*	+6.1*

* Differences in mortality levels are statistically significant.

[1] Data for color are exclusive of residents of New Jersey in 1962 and 1963.

EXCESS INFANT MORTALITY BY COUNTIES, 1956-60

In the 5-year period 1956-60, 318 U.S. counties had, on the average, 18 or fewer deaths per 1,000 live births. Had this relatively low rate prevailed generally in the other U.S. counties, an additional 169,784 infants would have survived their first year, an estimated 34,000 annually.

The greatest concentration of excess infant mortality occurred in 56 counties which had 35 percent of the aggregate number of excess infant deaths in the United States, or an average of 11,860 deaths per year. Nearly all of these counties have cities of 50,000 or more. A list of these counties is attached.

LIST OF U.S. COUNTIES WITH 400 OR MORE INFANT DEATHS IN EXCESS OF EXPECTED NUMBER, ASSUMING THE TENTH PERCENTILE COUNTY RATE, (18.3 per 1,000) OR LOWER, PREVAILED, 1956-60

(By place of residence)

State	County[1]	Rate	City of 50,000 or more, 1960
	400-799 excess deaths at rate specified		
ALABAMA	Mobile **	28.1	Mobile
ARIZONA	Maricopa **	27.9	Phoenix
CALIFORNIA	Alameda *	24.3	Alameda-Berkeley-Oakland-Hayward-San Leandro
	San Bernardino *	25.3	San Bernardino
	San Diego **	24.4	San Diego
	San Francisco (coext.) *	23.9	San Francisco (coext.)
COLORADO	Denver (coext.) *	28.7	Denver (coext.)
FLORIDA	Broward **	32.7	Fort Lauderdale
	Duval **	29.5	Jacksonville
	Escambia *	33.7	Pensacola
	Hillsborough *	30.0	Tampa
	Palm Beach **	36.6	West Palm Beach
INDIANA	Lake **	27.3	Gary-Hammond-East Chicago
KENTUCKY	Jefferson *	24.6	Louisville
LOUISIANA	Caddo *	31.9	Shreveport
MICHIGAN	Genesee *	26.8	Flint
MISSISSIPPI	Hinds *	35.0	Jackson
MISSOURI	Jackson *	26.1	Kansas City
NEW JERSEY	Hudson *	25.4	Bayonee-Jersey City-Union City
NEW MEXICO	Bernalillo *	29.6	Albuquerque
NEW YORK	Erie *	23.7	Buffalo
NORTH CAROLINA	Mecklenburg *	32.0	Charlotte
OHIO	Franklin *	23.8	Columbus
	Hamilton *	24.5	Cincinnati
	Montgomery *	26.5	Dayton
	Summit	25.7	Akron
OKLAHOMA	Oklahoma *	26.8	Oklahoma City
TEXAS	Cameron **	40.9	...
	El Paso *	27.5	El Paso
	Hidalgo **	36.2	...
	Lubbock **	36.2	Lubbock
VIRGINIA	Martinsville (Indep. city) *	36.1	Martinsville (Indep. city)
	Portsmouth (Indep. city) *	34.7	Portsmouth (Indep. city)
WASHINGTON	King **	23.2	Seattle
	800 or more excess deaths at rate specified		
ALABAMA	Jefferson **	30.1	Birmingham
CALIFORNIA	Los Angeles **	24.6	South Gate-Torrance-Pomona-Santa Monica-Norwalk-Pasadena-West Covina-Los Angeles
DISTRICT OF COLUMBIA	Washington **	36.1	Washington
FLORIDA	Dade **	29.3	Hialeah-Miami-Miami Beach
GEORGIA	Fulton **	31.6	Atlanta
ILLINOIS	Cook **	26.2	Chicago-Oak Park-Skokie-Berwyn-Cicero-Evanston
INDIANA	Marion **	27.4	Indianapolis
LOUISIANA	New Orleans **	33.9	New Orleans
MARYLAND	Baltimore (Indep. city) **	33.8	Baltimore (Indep. city)
MICHIGAN	Wayne **	26.5	Detroit-Dearborn-Lincoln Park-Livonia
MISSOURI	St. Louis (Indep. city) **	30.3	St. Louis (Indep. city)
NEW JERSEY	Essex **	29.9	Newark-Bloomfield-Irvington-East Orange
NEW YORK	New York City **	26.0	New York City
OHIO	Cuyahoga **	27.3	Cleveland
PENNSYLVANIA	Allegheny *	23.5	Penn Hills Twp.-Pittsburgh
	Philadelphia (coext.) **	32.0	Philadelphia (coext.)
TENNESSEE	Shelby **	30.7	Memphis
TEXAS	Bexar **	31.7	San Antonio
	Dallas **	26.3	Dallas
	Harris **	28.2	Houston-Pasadena
WISCONSIN	Milwaukee **	24.5	Milwaukee-Wauwatosa-West Allis

* Asterisk signifies the county has in addition excess postneonatal deaths, 100-199;
** 200 and over.
[1] Includes counties and independent cities of Virginia.

EXCESS NEONATAL AND POSTNEONATAL MORTALITY IN URBAN AND RURAL AREAS, 1964

In 1964, Connecticut's neonatal death rate was 15.4 per 1,000 live births. Wisconsin, in 1964, had 5.1 deaths per 1,000 live births at 1-11 months of age. Many communities in the United States have much higher risks for newborn, under 28 days, than in Connecticut; likewise, Wisconsin's low record of mortality in later infancy was greatly exceeded in many States and localities.

An estimate of excess in infant mortality and its whereabouts was obtained by a comparison of the actual number of deaths in 1964 with the number to be expected, if the relatively low rates in Connecticut and Wisconsin had prevailed throughout the country.

Nearly three out of four excess neonatal deaths were found ir urban areas. The majority, 62 percent, were in the urban areas of the "metropolitan" counties. An additional 11 percent was found in the urban areas of counties without a city as large as 50,000, (1960).

Excess neonatal mortality in rural areas and small towns (under 10,000 population) was concentrated in the counties without a large city of 50,000 or more. Somewhat more than one out of five excess deaths were to be found in such rural and small urban areas. In contrast, less than 5 percent of the excess neonatal deaths were found in the suburban areas of the large cities.

Excess postneonatal deaths were most frequent in the rural and small town areas outside of the metropolitan counties. Over half were found in these relatively urbanized areas. At the other extreme, in urban places of the metropolitan counties, another 30 percent of the excess deaths late in infancy were found. In these counties, the excess was confined entirely to the nonwhite group. In other words the postneonatal rates for white infants in the metropolitan counties of the United States were as low, or lower, in 1964 than in Wisconsin. Nearly 9 out of 10 excess postneonatal deaths of white infants were in families living in rural parts and small urban places of the counties without a city as large as 50,000.

PERCENT DISTRIBUTION IN URBAN AND RURAL AREAS OF METROPOLITAN AND NONMETROPOLITAN COUNTIES OF NEONATAL AND POSTNEONATAL DEATHS IN EXCESS OF EXPECTED, ASSUMING STATE TENTH PERCENTILE RATES PREVAIL, BY COLOR: UNITED STATES, 1964

(By place of residence)

Age and area[1]	Percent distribution of excess deaths		
	Assuming 15.4 neonatal, and 5.1 postneonatal deaths per 1,000 live births prevail[2]		
	Total	White	Nonwhite
Neonatal mortality (under 28 days)			
United States.....	100.0	100.0	100.0
Urban, 10,000 or more.....	73.1	78.3	70.9
Rural and urban under 10,000	26.9	21.7	29.1
Metropolitan counties[1].....	66.5	58.7	69.8
Urban, 10,000 or more.....	61.8	58.7	63.1
Rural and urban under 10,000	4.7	0	6.7
Nonmetropolitan counties.....	33.5	41.3	30.2
Urban, 10,000, under 50,000.	11.3	19.6	7.8
Rural and urban under 10,000	22.2	21.7	22.4
Postneonatal mortality (1-11 months)			
United States.....	100.0	100.0	100.0
Urban, 10,000 or more.....	39.3	11.7	44.9
Rural and urban under 10,000	60.7	88.3	55.1
Metropolitan counties[1].....	37.2	0	44.6
Urban, 10,000 or more.....	30.3	0	36.4
Rural and urban under 10,000	6.9	0	8.2
Nonmetropolitan counties.....	62.8	100.0	55.4
Urban, 10,000, under 50,000.	9.0	11.7	8.6
Rural and urban under 10,000	53.8	88.3	46.8

[1] In general, metropolitan counties are those with a city of 50,000 population or more in 1960.

[2] State rates in Connecticut and Wisconsin, respectively, 1964, occupying tenth percentile positions in State arrays.

Items may not add to total due to independent rounding.

Source of data: Public Health Service, National Center for Health Statistics.

POOR URBAN NEIGHBORHOODS: HIGH CONCENTRATIONS OF MATERNAL AND CHILD HEALTH PROBLEMS

In the 5-year period, 1956-60, an estimated 169,784 infants would have lived if the prevailing infant death rate had been as low as the tenth percentile rate (18.3 per 1,000 live births) among all U.S. counties during these years. This estimate implies that about 34,000 infants annually failed to survive in many parts of the country due to risks far in excess of those for some areas of the United States, and also for other countries.

We estimate that about 7,500 of the annual excess infant deaths (22 percent), occur in the 21 largest U.S. cities, cities all having 500,000 population or more in 1960. Over a fourth of the excess neonatal deaths, an estimated 5,000 annually, are to be found in these cities together with about 17 percent of the excess postneonatal deaths, about 2,500 per year.

Progress in reducing the infant death rate turns upon improvements in maternal and infant health. To be effective, many of these improvements must take place in the areas where the risks to maternal and infant health are highest. Studies have repeatedly illustrated that, in the modern city, maternal and infant mortality and morbidity are highest where family resources are minimal and standard of living is generally deprived.

The accompanying map of Chicago illustrates a method of locating metropolitan neighborhoods, with concentration of low income and otherwise deprived families. The method can be applied in all Standard Metropolitan Statistical Areas of 250,000 and over. A comparison of mortality rates and incidence of low birthweight (1963-65) between these poor neighborhoods of Chicago and the remainder of the city is shown on the next page.

The data are furnished by the Chicago Department of Health. The classification of census tracts by neighborhood is that of the Office of Economic Opportunity and the Bureau of the Census. Further information can be obtained from the Division of Research, Children's Bureau, Washington, D.C. 20201.

DIFFERENTIALS IN INFANT MORTALITY AND LOW BIRTH WEIGHT:
NEIGHBORHOODS IN CHICAGO, 1963-65

Item	Neighborhoods in national fourth quartile of socio-economic index	Balance of Chicago	Ratio: neighborhoods, to balance of Chicago (100)
Percent of live births with "low birthweight"			
Total	14.5	8.3	175
White	9.2	7.1	130
Nonwhite	15.7	12.5	126
Infant mortality rate			
Total	39.6	24.5	162
White	25.6	20.9	122
Nonwhite	42.9	37.2	115
Neonatal mortality rate			
Total	27.0	18.5	146
White	17.5	16.1	109
Nonwhite	29.2	27.1	108
Postneonatal mortality rate			
Total	12.6	6.0	210
White	8.0	4.9	163
Nonwhite	13.7	10.1	136
Joint perinatal-postneonatal mortality rate			
Total	61.1	40.1	152
White	41.5	34.6	120
Nonwhite	65.8	59.4	111